TREATMENT PERSISTENCE AND DISCONTINUATION REASONS OF JANUS KINASE INHIBITORS IN A REAL-WORLD SETTING OF RHEUMATOID ARTHRITIS PATIENTS

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Background and importance

Janus Kinase inhibitors (JAKi) are the most innovative drug class for **Rheumatoid Arthritis (RA)**. To date, limited real-world data are available about treatment persistence and discontinuation reasons of tofacitinib and baricitinib.

Aim and objectives

To evaluate **treatment persistence** and **discontinuation reasons** of tofacitinib and baricitinib in a real-world setting of RA patients.

Materials and methods

A retrospective study (2017/01-2022/09), including all RA patients from a tertiary hospital under treatment with **tofacitinib** or **baricitinib**.

- **Persistence** was examined through **Kaplan-Meier survival analysis and drug retention rates**.
- **Survival times** were compared statistically using **Log-rank test** and **Cox model**.
- **Discontinuation reasons** were classified into **ineffectiveness, adverse events (AE)**, and **others**.

Results

We included 152 cases from 117 RA patients (86% women, 63±13 years old) under treatment with tofacitinib (n=62; 40.8%) and baricitinib (n=90; 59.2%).

Treatment persistence and discontinuation reasons of tofacitinib and baricitinib are presented in **Table 1**.

Kaplan-Meier curves represent the estimated survival functions (**Graph 1**).

Graph 1. Kaplan-Meier survival estimates

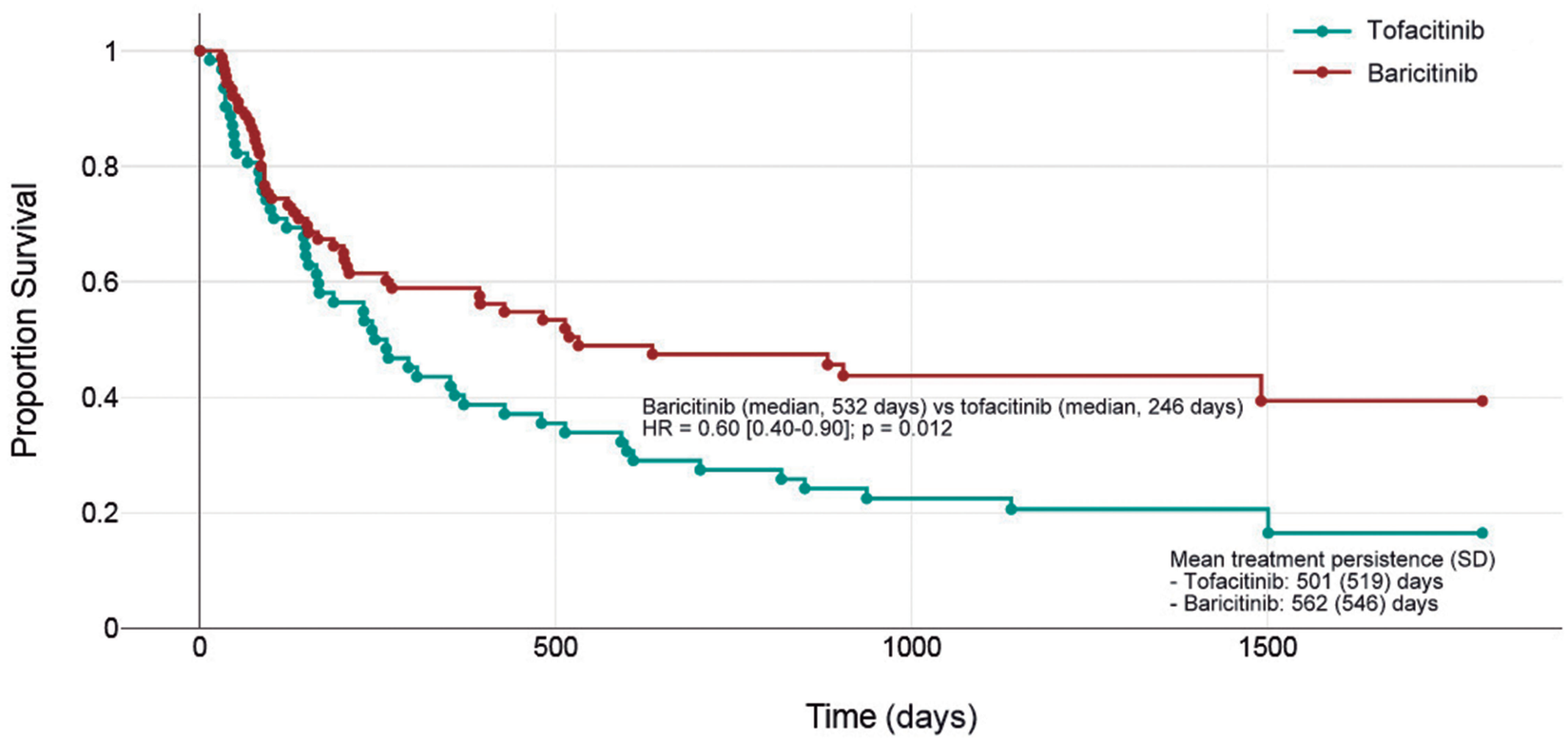

Table 1. Treatment persistence and discontinuation reasons of Janus Kinase inhibitors

	TOFACITINIB	BARICITINIB
Stop/Census (%)	50/62 (80.6)	47/90 (52.2)
	Kaplan-Meier survival estimates	
Median treatment persistence, days [95CI%]	246 [153 - 428]	532 [262 - NA]
HR [95CI%]; *p*-value	*HR = 0.60 [0.40-0.90]; *p* = 0.012	
Mean treatment persistence, days (SD)	501 (519)	562 (546)
***p*-value**	*p* = 0.494	
	Drug retention, number at risk	
91 days (3rd month), % (n)	75.8 (47)	76.7 (69)
183 days (6th month), % (n)	58.1 (36)	67.8 (61)
274 days (9th month), % (n)	46.8 (29)	60.0 (54)
365 days (12th month), % (n)	40.3 (25)	60.0 (54)
	Discontinuation reasons	
Ineffectiveness, % (n)	46.0 (23)	48.8 (21)
Adverse events, % (n)	52.0 (26)	48.8 (21)
Others, % (n)	2.0 (1)	2.4 (1)

NA: Not Applicable *Hazard Ratio (HR) for baricitinib versus tofacitinib

Conclusion and relevance

Our study concludes that tofacitinib showed lower median treatment persistence, lower drug retentions, and higher proportion of AE compared to baricitinib.